

Contacts:

Department of Defense (703) 695-0192

Department of Veterans Affairs (202) 273-5700

Department of Health and Human Services (202) 690-6343

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Persian Gulf Veterans Coordinating Board

The Persian Gulf Veterans Coordinating Board was established by President Clinton in January 1994 to work to resolve the health concerns of Persian Gulf veterans, including active duty personnel and reservists with Gulf service. The board, headed by the Secretaries of the Departments of Defense (DoD), Veterans Affairs (VA), and Health and Human Services (HHS), is coordinating government efforts related to research, clinical issues and disability compensation.

Background: Persian Gulf Veterans' Health Problems

Some 697,000 active duty service members and activated National Guard and Reserve unit members served in the Persian Gulf theater of operations during Operations Desert Storm and Desert Shield. The majority of troops were deployed to the Gulf theater of operations before the air war began on Jan. 16, 1991, and more than half of the deployed troops were withdrawn from the area by the first week of May 1991. However, an additional 300,000 individuals have been deployed over the ensuing years, with several thousand U.S. military members currently serving ashore and afloat in the Gulf region.

Responding to concerns about the health problems of Persian Gulf War veterans, in 1992 VA created the Persian Gulf Registry Program for all veterans who served in the Persian Gulf, inviting them to come to VA for a free medical examination. In addition, DoD has established the comprehensive clinical evaluation program (CCEP), to provide care and systematically evaluate Persian Gulf veterans and their family members. Veterans have commonly reported that they suffer from a diverse group of symptoms, including fatigue, skin rash, headache, muscle and joint pain, memory problems, shortness of breath, sleep disturbances, gastrointestinal symptoms, and chest pain. DoD, VA and HHS are investigating possible causes of Persian Gulf veterans' health problems, including various chemical exposure combinations, leishmaniasis, health effects of oil well fires, petrochemical exposure, chemical/biological warfare agents, effects of vaccines and medications, and exposure to depleted uranium. The three departments are engaged in more than 90 federally supported Persian Gulf-related research and evaluation projects, including studies of general health and environmental effects. This includes grants to more than a dozen non-federal researchers, federal agencies and academic institutions examining a variety of health issues in Gulf veterans or studies of specific risk factors or illnesses. In May 1995, President Clinton formed an independent advisory committee to review the research agenda as well as other government activities related to the health of Persian Gulf veterans.



The Presidential Advisory Committee on Gulf War Veterans' Illnesses, whose term recently was extended another nine months, issued reports assessing the government's approach to the health problems of Gulf War veterans in February 1996 and December 1996. The most recent report said that while there was a delay in acting at the end of the Gulf War, the government is now providing appropriate medical care to Gulf War veterans and has initiated research in the areas most likely to illuminate the cause of their illnesses. The advisory committee found that some veterans clearly have service-connected illness, but it said current scientific evidence does not support a causal link between the symptoms and illnesses reported today by Gulf War veterans and exposures while in the Gulf region to a variety of environmental risk factors assessed by the committee: pesticides, chemical warfare agents, biological warfare agents, vaccines, pyridostigmine bromide, infectious diseases, depleted uranium, oil-well fires and smoke, and petroleum products. Stress, which may affect the brain, immune system, cardiovascular system, and various hormonal responses, is likely to be an important contributing factor to the broad range of physiological and psychological illnesses currently being reported by the veterans, the Presidential Advisory Committee concluded.

VA Health Care - Persian Gulf Registry

VA's Persian Gulf Registry Program offers a free, complete physical examination with basic laboratory studies to every Persian Gulf veteran. A centralized registry of participants who have had these examinations is maintained to enable VA to keep them informed through periodic newsletters. This clinical database of more than 65,000 Persian Gulf veterans who have taken advantage of the physical examination program also provides a mechanism to catalog prominent symptoms, reported exposures and diagnoses. VA has named a physician at every VA medical center to coordinate the special examination program. In June 1994, VA expanded the basic examination protocol, which elicits information about symptoms and exposures, and directs baseline laboratory studies, including blood count, urinalysis, and a set of blood chemistries. In addition to this core laboratory work, for every veteran taking the Persian Gulf program examination, physicians may order additional tests and specialty consults as symptoms dictate. If a veteran's symptoms remain unexplained, VA provides an expanded assessment protocol, standardized in collaboration with DoD, for use in evaluation of unexplained illnesses.

In addition to the Registry program, VA provides medical care to Persian Gulf veterans for illnesses possibly related to exposure to toxic substances or environmental hazards. Any Persian Gulf veteran who VA determines might possibly have an illness resulting from exposure to a toxic substance or environmental hazard in the Persian Gulf theater of operations has special eligibility for hospital and outpatient care. They have a higher eligibility for treatment than other nonservice-connected veterans. For Gulf veterans with unexplained symptoms, the local VA physicians also may refer veterans to a local tertiary care facility, or to one of VA's four Persian Gulf Referral Centers for additional specialty consultations. They are located at VA medical centers in Washington, D.C.; Birmingham, Ala.; Houston; and Los Angeles.

Also, VA is inviting spouses and children of Persian Gulf War veterans to take advantage of special health examinations being scheduled through VA's national Persian Gulf Helpline. The free exams, administered by contractors of 33 VA medical centers, are available only to spouses and children of veterans who served in the Persian Gulf War and who have received a Persian Gulf Registry examination. VA estimates that the \$2 million authorized by Congress for this program will provide physical examinations for approximately 4,500 individuals. The program does not provide follow-up, treatment or compensation for the veteran's spouses or children.

VA offers a toll-free information line at 800-PGW-VETS (800-749-8387) where operators are trained to help veterans with questions about care and benefits and schedule the spouse and child examinations described above. Information also is being disseminated 24 hours a day through a Persian Gulf Veterans' Illnesses page on VA's World Wide Web site at <http://www.va.gov/gulf.htm>.

Realizing that research will take time to find answers to Persian Gulf veterans' health questions, the Clinton Administration supported legislation, enacted in 1994, to give VA authority to award compensation benefits to chronically disabled Persian Gulf War veterans with undiagnosed illnesses. Under a final regulation published Feb. 3, 1995, VA has begun paying compensation to Persian Gulf veterans suffering from chronic disabilities resulting from undiagnosed illnesses that became manifest during service in the Southwest Asia theater or within two years thereafter. On March 7, 1997, President Clinton approved VA's request to extend the eligibility period for compensation for undiagnosed illnesses to allow a window for manifestation of such symptoms through Dec. 31, 2001. After the regulatory process is complete, this will replace the current requirement for manifestation of symptoms within two years of leaving the Gulf. Some 27,383 veterans with Persian Gulf service currently are receiving VA compensation for chronic disabilities of all kinds including more than 660 for undiagnosed illnesses. Another 37,800 veterans have conditions that have been adjudicated as service-connected, but which are not serious enough to warrant compensation.

DoD's Comprehensive Clinical Evaluation Program

DoD, in collaboration with VA, developed the "Comprehensive Clinical Evaluation Program" in June 1994 to provide an in-depth medical evaluation to all eligible beneficiaries who have health concerns following service in the Gulf. All service members eligible for health care at DoD medical facilities, active, ready reserves or retired, who participated in Operation Desert Shield and Desert Storm, and their family members, are eligible for the program. To register, individuals should call the DoD hotline (800-796-9699) for Gulf War veterans. In April 1996, DoD issued its fourth report on 18,598 participants. DoD physicians find the majority of CCEP participants have clear diagnoses which include a variety of common conditions for which they are receiving treatment. The report concluded that based upon the CCEP experience to date, there is no clinical evidence for a single or unique syndrome among Gulf War veterans. However, a mild illness or a syndrome affecting a proportion of veterans at risk might not be detectable in such a case series. The results of the CCEP are consistent with the conclusions of a National Institutes of Health Technology Assessment Workshop Panel that no single disease or syndrome is apparent, but rather multiple illnesses with overlapping symptoms and causes.

A specialized care center established at Walter Reed Army Medical Center in Washington, D.C., provides therapeutic care for some CCEP participants. The center uses multidisciplinary teams to provide intensive programs to improve the health of patients experiencing disabling symptoms. An additional specialized care center is located at Wilford Hall Medical Center in San Antonio, Texas. This center provides treatment for Gulf War returnees with chronic pain and other health concerns.

In late 1996, DoD requested the National Academy of Sciences Institute of Medicine to reevaluate the relevancy of the CCEP examination process in light of the March 1991 demolitions at Khamisiyah, Iraq. A report is expected this year.

As of February 1997, 39,706 have requested participation in the CCEP. This number includes 10,379 individuals who have requested registration without examination.

Expanded Department of Defense Investigative Efforts

Since November 1996, DoD has expanded its Gulf Illnesses Investigative Team from 12 to 110 people. This expanded organization is designed to add additional resources to help better understand what could be causing Gulf War illnesses. This greatly expanded team is building upon the very valuable work accomplished thus far by many organizations throughout DoD. The team is composed of representative elements of critical DoD components to ensure that research and analytical efforts and outreach programs are effective, coordinated and meaningful.

In March 1995, DoD established a declassification effort encompassing research, medical, operational and intelligence records that could increase understanding of the causes of Gulf War illnesses. By March 1997, the DoD declassification project had reviewed over 5.5 million pages of operational information. Approximately 794,000 pages were provided to the Analysis and Investigation Team for further review. About 64,256 pages of information were posted on the GulfLINK World Wide Web home page.

In June 1996, DoD announced that U.S. troops destroyed large quantities of ammunition at Khamisiyah, a sprawling ammunition storage site in southern Iraq shortly after the Gulf War ended. Evidence that chemical weapons may have been among the munitions destroyed on March 4 and 10, 1991, has triggered an intensified effort on the part of DoD to reconstruct the events at that time. DoD released an interim narrative of events at Khamisiyah on Feb. 25, 1997. Additionally, the Army Inspector General is conducting an in-depth inquiry into all the events and activities surrounding Khamisiyah. The Assistant Secretary of Defense for Intelligence Oversight is looking into the handling of intelligence information about Khamisiyah.

In October 1996, the DoD announced a series of actions to seek the help of 20,000 Gulf War veterans who may have been near Khamisiyah, Iraq during the period March 4 - 15, 1991. The expanded outreach actually began in August 1996 when DoD began contacting 1,168 U.S. service members assigned to units involved in the March 4, 1991, demolition at the Khamisiyah bunker.

Veterans are being asked to call the DoD Gulf Veterans hotline numbers to report any medical problems they may be experiencing and provide any information they believe is pertinent to this event. The incident reporting hotline number is 1-800-472-6719.

The National Academy of Sciences has agreed to advise DoD on its overall approach to Gulf War Illnesses and to recommend any needed changes to that approach.

No Unusual Contagions Identified

The Persian Gulf Veterans Coordinating Board has carefully reviewed the clinical and scientific information available at this time and concludes that there is no scientific basis for claims that the illnesses of Persian Gulf veterans are caused by an infectious disease. In tens of thousands of protocol medical examinations of Persian Gulf veterans to date, neither VA nor DoD medical authorities have found evidence of infectious diseases beyond the range of illnesses common in the population at large. Research studies now in progress will provide more scientific answers to this question, but no published research to date has established a scientifically reproducible link between Gulf War veterans' illnesses and an infectious agent.

CDC has advised the American Association of Blood Banks it has found no evidence at this time to suggest unexplained symptoms of Persian Gulf veterans are due to infection. No characteristic infectious agent has been identified in ill veterans, no epidemiologic evidence suggests unusual rates of any infectious agent and there is no scientific study demonstrating secondary transmission to family contacts.

More than 30 U.S. servicemembers were diagnosed with leishmaniasis, a sandfly-borne infectious disease endemic to the Persian Gulf region; however, it is unlikely to be a major contributing cause to undiagnosed illnesses. Leishmaniasis itself is not transmitted from person to person.

All plausible hypotheses related to potential causes of Gulf War illnesses will be examined by federally sponsored research projects. Private scientifically valid research is encouraged as well.

Research Activities

The federal government has steadily expanded research into the illnesses reported by Gulf War veterans, including the latest portfolio of 17 studies that include both non-federal researchers, federal agencies and academic institutions. The compendium of new projects brings to more than 90 the total of federally supported research projects. The research agenda is detailed in the November 1996 update to *A Working Plan for Research on Persian Gulf Veterans' Illnesses*. The new initiative results from a nationwide request for protocols that brought a broad response of 111 scientific proposals. The proposed investigations were reviewed by independent panels of experts and graded for scientific merit and for program relevance to key questions surrounding health issues of Gulf veterans. The Persian Gulf Veterans Coordinating Board, through its Research Working Group, has intensified efforts related to possible effects of low-level exposures to chemical warfare agents. Based on the Coordinating Board's recommendation, three new peer-reviewed, basic science research projects in this area have been funded, and an additional \$2 million has been identified for future studies.

During fiscal year 1996, DoD committed \$12 million of DoD funds for research involving Persian Gulf health issues as designated by the *Working Plan for Research on Persian Gulf Veterans' Illnesses*. Five million dollars of DoD/VA sharing funds were specifically designated to study the possible health effects related to subclinical exposure to chemical warfare agents. In fiscal year 1997, DoD is committed to obligating at least \$27 million for Persian Gulf health-related research. Of the \$27 million, about \$20 million is for research on the health effects of possible exposure to chemical warfare agents and other possible exposures, and DoD is currently awaiting the independent proposal selection process. The remaining \$7 million supports other Persian Gulf health-related research.

The *Working Plan for Research on Persian Gulf Veterans' Illnesses* identifies major research questions and gaps in current knowledge, and required research that will close the gaps between what is known and what is needed. Among the 21 key research questions listed in the plan, the one identified as most important is the determination of whether Persian Gulf veterans are experiencing a greater prevalence of illnesses in comparison with an appropriate control population. Thirteen controlled scientific studies are being funded to address that question. Additional research goals include identifying possible risk factors for any excess illness or death, as well as finding appropriate diagnostic tools, treatment methods, and prevention strategies for any conditions found. The research plan helps coordinate federally sponsored research to ensure all the relevant research issues are targeted and unnecessary duplication is avoided.

Some Persian Gulf veterans have expressed concern about birth defects in their children. While there are no current data supporting an increased rate of birth defects in the children of Persian Gulf War veterans, this is an important research question and deserves extremely careful review. A study conducted by the Mississippi State Department of Health in conjunction with the Centers for Disease Control and Prevention (CDC) and the Jackson, Miss., VA Medical Center showed no increase in birth defects or illnesses among children born to Persian Gulf veterans in two National Guard units. In addition, preliminary results of DoD epidemiologic research demonstrate no increase in the overall rate of birth defects among children born after active duty servicemembers returned from the Gulf compared to children of a control group of active duty service members who did not serve in the Gulf. Ongoing DoD, VA and CDC studies are examining the issue of birth defects, reproductive health, and family health status. Because of the broader importance of reproductive health to veterans, VA, in collaboration with the University of Louisville, established a fourth environmental hazards research center at the Louisville, Ky., VA Medical Center focusing on reproductive and developmental outcomes in both Vietnam and Persian Gulf veterans.

Research Studies and Evaluations

- A panel of nongovernment experts brought together at a *National Institutes of Health*-sponsored workshop in April 1994 examined data and heard from both veterans and scientists. The panel concluded that no single cause or biological explanation for the reported symptoms could be identified and indicated that it was impossible at that time to establish a single case definition for the health problems of Gulf veterans.

- VA and DoD contracted with the *National Academy of Sciences* to review existing scientific and other information on the health consequences of Gulf operations. An interim report was issued Jan. 4, 1995, and the final report was published in October 1996.

- The **Naval Medical Research Center** in San Diego, in collaboration with VA investigators, is conducting epidemiological studies comparing Gulf veterans and control-group veterans (who served elsewhere) to detect differences in illnesses, hospitalizations, and birth outcomes in large cohorts of active duty service members.
- In its **National Health Survey of Persian Gulf Veterans**, the VA is conducting a mail survey of a random sample of 15,000 Persian Gulf veterans and active duty members with Gulf service to compare their health status with an equal-sized group not deployed to the Gulf. Results of initial responses now are being analyzed. Information on the health status of family members also is included, including birth outcomes and illnesses in the children born to veterans in the survey. A health examination will be offered to a representative sample to help evaluate participants' symptoms.
- CDC, in collaboration with the University of Iowa and the Iowa Department of Public Health, conducted a telephone survey of 3,695 active and retired **military personnel from Iowa** and found that Persian Gulf veterans reported significantly higher rates of certain medical and psychiatric conditions than their counterparts in the military who were not deployed to the Persian Gulf. The results of this CDC-funded study appear in the Jan. 15, 1997, issue of the *Journal of the American Medical Association*.
- CDC also is studying a group of **Air National Guard Persian Gulf War veterans** in the state of Pennsylvania for any pattern of unusual illnesses. In the June 16, 1995, *Morbidity and Mortality Weekly Report*, the CDC said preliminary findings indicate that some chronic symptoms were reported more commonly by Persian Gulf War veterans than by nondeployed Persian Gulf War-era service personnel. However, standardized physical examinations and reviews of laboratory test results did not reveal consistent abnormalities. Final results of the study will be published within a few months.
- VA has analyzed cause-of-death data gathered from death certificates for its **Mortality Followup Study of Persian Gulf Veterans**, comparing Gulf-deployed veteran non-combat deaths with a control group of troops never deployed to the Gulf. As has been observed after other wars, veterans of the Persian Gulf War have experienced a higher incidence of death due to accidents. When this contributing factor is excluded, Persian Gulf veterans have not experienced a higher mortality rate due to disease-related causes. Both the Persian Gulf and non-deployed control group veterans had a lower death rate than Americans their age in general. A report was published Nov. 14, 1996, in the *New England Journal of Medicine*.
- VA established four **environmental hazards research centers** with an initial focus on the possible health effects of environmental exposures of Persian Gulf veterans. The centers are located at VA hospitals in Boston; East Orange, N.J.; and Portland, Ore. The centers are being funded for five years with a total annual budget of approximately \$1.5 million and an additional \$300,000 for equipment costs in the first year of operation. A total of 14 individual protocols are scheduled on a variety of interdisciplinary projects. A fourth environmental hazards research center focused on reproductive outcomes was announced in November 1996 to be located in Louisville, Ky.

- The Baltimore VA Medical Center is following the health status of individuals who retained embedded fragments of ***depleted uranium*** from injuries sustained during the Persian Gulf War.
- The Birmingham VA Medical Center is conducting a clinical evaluation program that includes an extensive battery of neurological tests aimed at detecting the kind of dysfunction that would be expected after ***exposure to nerve agents***.
- DoD will study the effects of chemical/environmental exposures.
- DoD and VA are continuing work in developing a less invasive test for ***viscerotropic leishmaniasis*** that may provide for broader diagnostic screening in the future.
- DoD has developed a ***geographic information system*** (GIS), or troop location registry, that contains location information on more than 4,000 units from all Services. The GIS allows military unit locations during Operation Desert Storm to be compared with air quality measurements, reported SCUD attacks, chemical/biological weapon detection reports, weather reports and other factors. This data was used to identify units in the Khamisiyah area.
- Both VA and DoD are continuing to examine the role of stress from deployment and ***post-traumatic stress disorder***, with a goal of developing intervention strategies.

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